



2838
2881

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket: KAGADEI=1

In re Application of:)	Confirmation No.: 6897
)	
Valery KAGADEI et al.)	Art Unit: 2838
)	
Appln. No.: 10/086,621)	Examiner:
)	
Filed: March 4, 2002)	Washington, D.C.
)	
For: A METHOD AND APPARATUS)	November 12, 2003
FOR PRODUCING ATOMIC ...)	
)	

INFORMATION DISCLOSURE STATEMENT [IDS]

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop DD
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir :

This Information Disclosure Statement is submitted in accordance with 37 CFR §§1.97, 1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

1. This IDS should be considered, in accordance with 37 CFR §1.97, as it is filed before the mailing date of a first Office action on the merits or before the mailing of a first Office action after the filing of a Request for Continued Examination under 37 C.F.R. §1.114.

2. In accordance with 37 CFR §1.98, this IDS includes a list (e.g., Form PTO/SB/08A) of all patents,

publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document listed is attached.

3. Document BK is not in the English language. In accordance with §1.98(c), Applicants state:

[X] An English translation of document BK (or of the pertinent portions thereof), or a copy of each corresponding English-language patent or application, or English-language abstract (or claim) is enclosed.

4. No explanation of relevance is necessary for documents in the English language (see reply to Comments 67 and 68 in the preamble to the final rules; 1135 OG 13 at 20).

5. Other information being provided for the examiner's consideration follows:

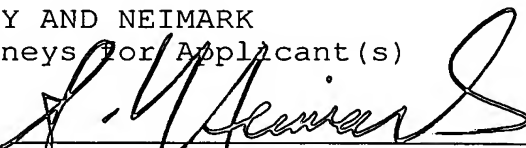
A copy of the International Search Report is attached.

6. In accordance with 37 CFR §§1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of publication indicated for an item is taken from the face of the item and Applicants reserve the right to prove that the date of publication is in fact different. (

Respectfully submitted,

BROWDY AND NEIMARK
Attorneys for Applicant(s)

By:


Sheridan Neimark
Reg. No. 20,520

SN:zv
624 Ninth Street, N.W., Suite 300
Washington, D.C. 20001-5303
Telephone: (202) 628-5197
Facsimile: (202) 737-3528
G:\bn\c\cohn\kagadei1\pto\IDS12Nov03.doc

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known	
		Application Number	10/086,621
		Filing Date	March 4, 2002
		First Named Inventor	Valery KAGADEI, et al.
		Group Art Unit	2838
		Confirmation No.	6897
Sheet	1	of	2
		Attorney Docket Number	KAGADEI=1

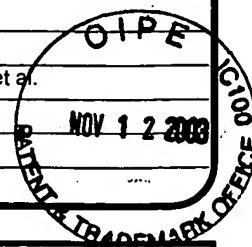
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	BB	ANISHCHENKO et al., <i>Dry Cleaning of Fluorocarbon Residues by Atomic Hydrogen Flow</i> , International Conference Micro- and Nanoelectronic, ICMN-2003, (October, 2003), pp. 1-6.	
	BC	ANISHCHENKO et al., <i>Residual Photoresist Removal from Si and GaAs Surface by Atomic Hydrogen Flow Treatment</i> , International Conference Micro- and Nanoelectronic, ICMN-2003, (October, 2003), pp. 1-5.	
	BD	BOZHKOV et al., <i>A Comparative Study of the Atomic Hydrogen Penetration into the Thin Vanadium Films and Silicon Oxide-Gallium Arsenide Structures</i> , Technical Physics Letters, Vol. 26, no. 10 (2000), pp. 926-928.	
	BE	CHALDYSHEV et al, <i>Hydrogenation of GaAs Films Grown at Low Temperature</i> , Symposium on Non-Stoichiometric III-V Compounds, (October, 2001), pp. 1-6.	
	BF	KAGADEI et al, <i>Atomic Hydrogen Flux Density Measured Using Thin Metal Films</i> , Technical Physics Letters, Vol. 29, no. 11 (2003), pp. 897-900.	
	BG	KAGADEI et al, <i>Current-Voltage Characteristics of a Reflex Discharge with a Hollow Cathode and Self-Heating Electrode</i> , Technical Physics, Vol. 46, no. 3 (2001), pp. 292-298.	
	BH	KAGADEI et al, <i>The Effect of Atomic Hydrogen Flow on Electrical Resistance of the Transition Metal Films</i> , The European Material Conference, E-MRS, (June, 2003), pp. 1-15.	
	BI	KAGADEI et al, <i>The Effect of Hydrogenation on the Photoconductivity of Ion-Doped Gallium Arsenide Structures</i> , Technical Physics Letters, Vol. 26, no. 4 (2000), pp. 269-271.	
	BJ	KAGADEI et al, <i>The Effect of Hydrogenation on the Sink Breakdown Voltage of Transistors Based on Ion-Doped Gallium Arsenide Structures</i> , Technical Physics Letters, Vol. 29, no. 1 (2003), pp. 12-15.	
	BK	KAGADEI et al, <i>Hydrogenation Kinetics and Change in Resistance of Thin Vanadium Films Under Treatment by Atomic Hydrogen Flow</i> , Izvestiya Vysshikh Uchebykh Zavedenii, Fizika, no. 11 (2003), pp. 67-76.	YES
	BL	KAGADEI et al, <i>In situ Cleaning of GaAs and Al_xGa_{1-x}As Surfaces and Production of Ohmic Contacts using an Atomic Hydrogen Source Based on a Reflected Arc Discharge</i> , Journal of Vacuum Technology, Vol. 17 (1999), pp. 1488-1493.	
	BM	KAGADEI et al, <i>Investigation of the Penetration of Atomic Hydrogen from the Gas Phase into SiO₂/GaAs</i> , Journal of Vacuum Technology, Vol. 19 (2001), pp. 1871-1877	

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/086,621
		Filing Date	March 4, 2002
		First Named Inventor	Valery KAGADEI, et al.
		Group Art Unit	2838
		Confirmation No.	6897
		Attorney Docket Number	KAGADEI=1
(use as many sheets as necessary)			
Sheet	2	of	2



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	BN	KAGADEI et al, <i>Modeling Atomic Hydrogen Diffusion in GaAs</i> , International Conference Micro- and Nanoelectronic, ICMN, (October, 2003), pp. 1-5.	
	BO	KAGADEI et al, <i>Simulation of the Production of Atomic Hydrogen in a Low-Pressure-Arc-Discharge-Based Source</i> , <i>Journal of Vacuum Technology</i> , Vol. 19 (2001), pp. 1346-1352.	
	BP	KAGADEI et al, <i>Suppression of Parasitic Backgating by Hydrogenation of Ion-Doped Gallium Arsenide Structures</i> , <i>Technical Physics Letters</i> , Vol. 25, no. 7 (July, 1999), pp. 522-523.	
	BQ	KAGADEI et al, <i>Use of a New Type of Atomic Hydrogen Source for Cleaning and Hydrogenation of Compound Semiconductive Materials</i> , <i>Journal of Vacuum Technology</i> , Vol. 16 (1998), pp. 2556-2561.	
	BR	Semenov et al, <i>Gas-Discharge Sources with Charged-Particle Emission from the Plasma of a Hollow-Cathode Glow Discharge</i> , <i>Russian Physics Journal</i> , Vol. 44, no. 9 (2001), pp. 977-986.	
	BS	Soltanovich et al., <i>Study of Depth Distribution of Metastable Hydrogen-related defects in n-type GaAs</i> , <i>Physica B: Condensed Matter</i> , Vol. 308-310 (July, 2001), pp. 827-830.	
	BT	Tarassenko et al., <i>Application of KrCl excilamp for cleaning GaAs surface using atomic hydrogen</i> , <i>SPIE</i> , Vol. 3274, pp. 323-330.	

Examiner Signature	Date Considered
--------------------	-----------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.